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A. FACILITIES EXCLUDED FROM THE PROSPECTIVE PAYMENT SYSTEM: The prospective payment system applies to most acute care hospitals in West Virginia. Cases treated in excluded facilities are paid under their current payment methodologies. The qualifying provisions for exempt facilities and units that are of relevance are as follows:

1. **Psychiatric Hospitals:** Psychiatric hospitals and distinct-part units must meet the Medicare regulatory definition of a psychiatric hospital or distinct-part unit and be primarily engaged in providing psychiatric treatment of mentally ill patients.

2. **Rehabilitation Hospitals**: Rehabilitation hospitals and distinct-part units may qualify as excluded facilities if they meet the Medicare regulatory definitions and are primarily engaged in furnishing intensive rehabilitation services. Payment for inpatient rehabilitation hospitals is a cost-based retrospective system determined by applying the standards, cost reporting periods, cost reimbursement principles, and method of cost apportionment used under Title XVIII of the Social Security Act, prior to the Social Security Amendment of 1983 (Section 601, Public Law 98-21). That is, payment is to be determined by the current Medicare Principles methodology of cost-based reimbursement.

3. **Essential Access Community Hospitals (EACH) and Rural Primary Care Hospitals (RPCH):** Excluded from PPS are RPCH hospitals that participate in HCFA's EACH/RPCH program.

   (a) Payment for cases treated in RPCH hospitals is based on Medicare's per diem payment methodology.

   (b) For rate year 1996, payment levels for the RPCH hospitals are at their respective Medicare levels.

   (c) EACH hospitals remain within PPS and receive payment as Sole Community Hospitals.

B. **CASES EXCLUDED FROM THE PROSPECTIVE PAYMENT SYSTEM:** The prospective payment system applies to most, but not all, discharges treated in acute care hospitals in West Virginia. The qualifying provisions for exempt cases that are of relevance are as follows:

1. **Rehabilitation Cases:** If rehabilitation treatment is rendered outside a PPS excluded rehabilitation unit or a freestanding rehabilitation hospital, the discharge cannot be assigned to DRG 462, Rehabilitation. Payment will be denied for all cases assigned to this DRG.

2. **Transplant Cases:** Discharges assigned to the following organ transplant DRGs are excluded from PPS:

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(a) DRG 103, Heart Transplant
DRG 302, Kidney Transplant
DRG 480, Liver Transplant
DRG 481, Bone Marrow Transplant
DRG 495, Lung Transplant
Pancreas/Kidney Transplant

(b) The Bureau will pay the DRG payment for organ transplants that have an assigned DRG with an upper limit established at $ 75,000. For those organ transplants not assigned a DRG, payment will be negotiated on a case-by-case basis with an upper limit established at $75,000.

(c) Organ procurement will be reimbursed separately from the DRG. For service description see ATTACHMENT 3.1-E, Page 1. Reimbursement will be made to the hospital. Payment for the organ procurement will be based on the current organ standard acquisition charge, established by the Center for Organ Recovery and Education (CORE).

3. **Low Volume DRGs**: Cases for which stable and reliable weights could not be calculated, as determined in C2, are excluded from the prospective payment system. Discharges assigned to the following DRGs are excluded from PPS in rate year 1996:

(a) DRG 23, Nontraumatic stupor & coma
DRG 117, Cardiac pacemaker revision except device replacement
DRG 118, Cardiac pacemaker device replacement
DRG 199, Hepatobiliary diagnostic procedure for malignancy
DRG 292, Other endocrine, nutrit & metab O.R. procedure W CC
DRG 293, Other endocrine, nutrit & metab O.R. procedure W/O CC
DRG 457, Extensive burns W/O O.R. procedure
DRG 472, Extensive burns W O.R. procedure
DRG 483, Tracheostomy except for face, mouth and neck diagnoses

(b) For cases in low volume DRGs, payment will be based upon the following four-step estimated cost methodology:

(i) Charges for noncovered services are subtracted from total submitted charges.
(ii) The allowed charges on the hospital bill are multiplied by the hospital's total cost-to-charge ratio to obtain an estimated cost.
(iii) The estimated cost is multiplied by 0.90 to obtain a preliminary payment amount. No adjustments to the payment amount is made for wage differences or indirect medical education costs.
(iv) The preliminary payment amount is multiplied by 1.025 to adjust payment for the West Virginia health care related provider tax.

4. **Invalid DRGs**: Discharges cannot be assigned to the following DRGs:

(a) DRG 109, Not Valid
DRG 438, Not Valid
DRG 469, Principle Diagnostic Not Valid as Discharged Diagnosis
DRG 470, Ungroupable
DRG 474, Not Valid

(b) Payment will be denied for all cases assigned to one of the listed DRGs.

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5. **Same-day, Live Discharges:** Cases with extremely short lengths of stay that involve a live discharge are excluded from PPS.

(a) **Definition:** A case is defined as a same-day, live discharge when the patient is admitted to the hospital for 24 hours or less, even if it involves an overnight stay, and is discharged alive.

(b) Cases assigned to DRG 391, Normal Newborn, and DRGs 370 through 375, the maternity DRGs, are excluded from this policy.

(c) Cases that meet the same-day, live discharge criteria will be denied under PPS. These cases will be paid as outpatients.

C. **METHODS USED TO ESTABLISH DRG PAYMENT WEIGHTS:** The Bureau followed HCFA's current methodology for creating DRG weights. As of January 1, 1996, Medicare's Version 13 GROUPER will be used to assign cases to DRGs. The Bureau will continue to use the most current version of Medicare's GROUPER, which is updated annually.

1. **Development of DRG Weights:** The West Virginia Health Care Cost Review Authority's (HCCRA) UB-82 discharge data for the three public payers for the years 1992 and 1993 were used to derive the Bureau's DRG weights and to calculate hospital-specific case-mix indices. The following methodology was used to calculate the DRG weights:

(a) All discharges were assigned to a DRG using the Medicare Version 13 GROUPER.

(1) Cases in which charges exceeded three standard deviations above and below the geometric mean charge for each DRG were deleted prior to calculation of the DRG weights.

(2) Cases that are excluded from the Bureau's prospective payment system were excluded from the HCCRA billing data prior to calibration of the weights. They are:

(i) cases treated in PPS exempt facilities as specified in A;
(ii) transfer cases of sending hospitals, except those cases assigned to DRGs 385 and 456;
(iii) organ transplants;
(iv) cases assigned to low volume DRGs; and
(v) same-day, live discharge cases.

(b) Two direct adjustments to the hospital charges were made before calculating the DRG weights.

(1) Charges were standardized for area wage differences by dividing the labor-related portion of charges by the hospital's wage index (see section E1).

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(2) Charges from teaching hospitals were standardized for the indirect costs associated with providing medical education by dividing charges by a hospital-specific indirect medical education adjustment factor (see section E2).

(c) Calculation of the DRG weights proceeded as follows:

(1) All charges were totaled for a two year (1992-1993) period across all PPS hospitals and put on an average charge per discharge basis. This became the denominator in the calibration of relative values.

(2) Charges for all cases within each DRG were summed and also put on an average charge per discharge basis. This became the numerator in the calibration of relative values.

(3) DRG-specific charges per discharge were divided by the overall average charge per discharge to produce the DRG relative values.

(4) Each DRG weight is reduced by the proportion of outlier to total PPS payments expected to be made to patients in each DRG as specified in Section F.

(5) All debited weights are normalized by the new average case-mix index value as specified in F3(d).

2. **Identification of Low Volume DRGs:** The Bureau recognized during the process of creating the DRG weights that there were a number of DRGs that did not have sufficient annual volume to construct valid DRG weights.

(a) To identify low volume DRGs, the Bureau used two methods, HCFA's original and current method, for identifying low volume DRGs .

(i) The first method establishes a statistical precision criterion for the DRG weight. The estimated average charge of a DRG had to be within ± 10 percent of its true mean 90 percent of the time. Using this statistical criterion, a minimum number of cases required to ensure a relisble and valid DRG average cost estimate was specified. DRGs that do not have the requisite number of cases were considered as potential low volume DRGs.

(ii) The second method reflects HCFA's simplified and current approach to identifying low volume DRGs; any DRG with fewer than 10 discharges per annum is considered a potential low volume DRG.

(b) Using the 1992/1993 data from HCCRA, weights were calculated for all but 50 DRGs that met either criterion.

(c) Representatives from several hospitals were asked to evaluate the low volume DRG weights relative to other DRG weights in the same MDC for their ability to reasonably

compensate acute care hospitals for the care provided to the insured population. The evaluations were reviewed and if two or more concurred that a DRG 's weight did not appear reasonable, then that DRG was identified as a low volume DRG. The following list of DRGs are excluded from PPS:

(i) DRG 23, Nontraumatic stupor & coma
(ii) DRG 117, Cardiac pacemaker revision except device replacement
(iii) DRG 118, Cardiac pacemaker device replacement
(iv) DRG 199, Hepatobiliary diagnostic procedure for malignancy
(v) DRG 292, Other endocrine, nutrit & metab O.R. procedure W CC
(vi) DRG 293, Other endo., nutrit & metab O.R. procedure W/O CC
(vii) DRG 457, Extensive burns W/O O.R. procedure
(viii) DRG 472, Extensive burns W O.R. procedure
(ix) DRG 483, Tracheostomy except for face, mouth and neck diagnoses

(d) The Bureau modified the following three DRGs' weights based upon recommendations of the hospital representatives:

(i) DRG 61's weight was set equal to DRG 62's weight;
(ii) DRG 146's weight was set equal to DRG 148's weight; and
(iii) DRG 147's weight was set equal to DRG 149's weight.

(e) Following the removal of low volume DRGs, the DRG weights were recalculated using the method described in C1.

3. **Development of Case Mix Index** : To develop a DRG payment system, each hospital must have an overall case mix index (CMI). The index is used to adjust hospital costs to make them more comparable prior to calculating standardized operating and capital payment amounts. Case mix indices were established using the following methodology:

(a) The DRG weights established in Sections C1 and C2 were used to create these case mix indices.

(b) 1992 and 1993 HCCRA UB-82 billing data for the three public payers were used and assigned to a DRG using the Medicare Version 12 GROUPER.

(c) The proportion of discharges in each DRG for each hospital was calculated.

(d) The DRG-specific proportion of discharges was multiplied by its appropriate DRG weight and summed across all DRGs at the hospital level. This creates the numerator.

(e) The denominator is the average of C3(d) across all hospitals and DRGs divided by the total number of W. Virginia PPS hospitals.

(f) Each hospital's CMI is developed by dividing the product calculated in C3(d) by the

overall average calculated in C3(e), thereby resulting in a statewide average value of 1.0 in W. Virginia.

4. **Recalibrating DRG Weights:** The Bureau will calibrate the DRG weights annually using the most currently available HCCRA discharge data for the W. Virginia three public payers.

(a) HCCRA data for the most recent two year time period will be used by Bureau to recalibrate the DRG weights.

(b) The recalibration will occur during the last calendar quarter of each rate year.

(i) The discharge data will be assigned to the Medicare GROUPER that takes effect on October 1 of the current rate year.

(ii) The recalibrated weights will be constructed following the methodology as described in Section C1.

(iii) The recalibrated weights will be effective on January 1 of the new rate year.

D. **METHODS USED TO ESTABLISH PROSPECTIVE OPERATING PAYMENT RATE:** The Bureau has established two standardized operating payment amounts: one standardized amount for large urban hospitals and another standardized amount for all other hospitals. The two standardized payment amounts represent the average operating cost across all Medicaid cases treated within each peer group's hospitals in 1992 trended forward to the rate year of 1996 using the DRI-McGraw Hill PPS Hospital Index.

1. **Basis of the Standard Operating Payment Amounts:** The Bureau uses Medicare's definition of allowable costs associated with each discharge as the basis for the standardized payment amounts for operating costs. However, the level of allowable costs for the most costly hospitals is capped at the hospital's 80th percentile average allowable cost per case.

(a) Costs for PPS-excluded hospitals or units as specified in Section A and for PPS-excluded cases as specified in Section B are not included in the PPS standardized payment amounts. Furthermore, the following types of costs were removed before the base operating costs were calculated:

(i) direct medical education costs,
(ii) capital related costs,
(iii) kidney acquisition costs, and
(iv) services provided by CRNAs.

(b) The operating cost per discharge is determined by converting each claim's charges to costs. The following steps outline the process:

(i) 1992 HCCRA hospital billing data for Medicaid patients were used to estimate the base year cost per discharge.

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(ii) Charges and utilization data on claims were converted into costs using data from audited Medicare Cost Reports from federal fiscal year 1991.

(ii) All services and charges excluded from coverage were removed from the claims data.

(c) Two types of costing factors were developed for each hospital in order to convert the charges on individual claims into costs:

(i) cost-to-charge ratios for each of the ancillary departments; and

(ii) nursing (room and board) cost per inpatient day by type of accommodation.

(d) Ancillary charges, by department, were multiplied by their applicable cost-to-charge ratios to determine ancillary costs.

(e) The number of days indicated on the claim for each type of accommodation were multiplied by their applicable nursing cost per inpatient day to determine total nursing costs for the inpatient stay.

(f) Total ancillary costs and total nursing costs were added together to obtain the total costs for each claim.

(g) The standardized operating payment amounts provide reimbursement to hospitals for all services provided during the entire inpatient stay and for all outpatient services, including all preadmission diagnostic and nondiagnostic services, provided on the day of admission.

2. **Hospital-Specific Adjustments to Costs:** Adjustments were made to the estimated hospital costs to remove the effect of case mix, wage differences and indirect medical education costs prior to calculation of the average standardized cost per discharge within each peer group.

(a) **Case Mix Adjustment:** Hospital costs are standardized to account for case mix by dividing the hospital's average cost per case, as determined in D3, by its respective case mix index as determined in C3.

(b) **Wage Difference Adjustment:** Hospital labor-related costs are standardized to account for differences in wages across the state by dividing each hospital's average cost per case, as determined in D3, by its respective geographic wage adjustment factor, as determined in Section E1.

(c) **Indirect Medical Education Adjustment:** Teaching hospitals' costs were standardized to remove indirect costs associated with training physicians, by dividing each teaching hospital's average cost per case, as determined in D3, by its respective indirect medical education adjustment factor, as determined in E2.

3. **Establishing Maximum Operating Cost Thresholds:** The Bureau established maximum average

operating costs per discharge thresholds for each peer group of hospitals and across all hospitals using the following methodology:

(a) A 1992 average standardized operating cost per case was estimated for each hospital by summing standardized operating costs, as specified in Sections D1 and D2, to the hospital level and dividing by the hospital's total number of cases.

(b) Within each peer group, hospitals were arrayed from highest to lowest average standardized cost per case.

(c) The 80th percentile hospital's 1992 average standardized cost per case was used as the threshold in each peer group.

(i) The threshold for the large urban peer group was established at $2,533.

(ii) The threshold for the all other peer group was established at $2,684.

(d) The costs of hospitals exceeding these thresholds were capped at the threshold for purposes of calculating the standardized amounts.

(e) A statewide cap was established by arraying all hospitals from highest to lowest average standardized cost per case.

(f) The 80th percentile hospital's average standardized cost per case was used as the statewide threshold.

(i) The statewide threshold for rate year 1992 was established at $2,701.

(g) Sole Community Hospitals' own 1992 operating costs are not capped at the 80th percentile for payment purposes if the hospital elects to receive payment as a Sole Community Hospital.

4. **Calculation of 1992 Peer Group Average Standardized Cost Per Case:** The 1992 base year standardized average cost per case was determined as follows:

(a) Hospital-specific average standardized operating costs per case were determined, as specified in Sections D1, D2 and D3.

(b) Within each peer group, an overall average standardized operating cost was determined by:

(i) multiplying each hospital's average standardized operating cost by its number of discharges;

(ii) summing across all hospitals within the peer group; and

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(iii) dividing through by the total number of discharges across all hospitals within the peer group.

5. **Establishment of Rate Year 1996 Standardized Operating Payment Amounts:** The 1992 base year peer group average cost per case estimates were trended forward to rate year 1996 by the DRI/McGraw Hill PPS Hospital Index to account for (a) input price inflation from 1992 to 1996 and (b) anticipated DRG coding changes from 1992 to 1996.

(a) The 1992 base year peer group average costs were trended forward to rate year 1996 to account for price inflation using the DRI/McGraw Hill PPS Hospital Market Basket Index.

(b) The 1996 standardized operating costs were adjusted downward to account for an estimate of DRG coding improvement that is expected to be reflected in 1996 claims relative to 1992 claims, and that is unrelated to real case mix changes. Data obtained from the W. Virginia Health Care Cost and Review Authority (HCCRA) were used to estimate both real case mix change and case mix change due to more complete coding. The following methodology was used:

(i) The annual change in case mix across all W. Virginia discharges, including Medicare, was 1.12% for the years 1991 through 1995. The Bureau determined that this was a reasonable estimate of real case mix change.

(ii) The annual change in case mix across Medicaid discharges was approximately 5% between 1992 and 1994.

(iii) Subtracting 1.12% in real annual growth from 5% nominal annual growth leaves a 3.88% annual change in case mix. The Bureau decided to treat 50% of this annual change, or 1.9%, as real case mix change and 50%, or 1.9%, as representing improvements in coding not reflected in the 1.12%.

(iv) The 1.9% change in case mix due to coding improvements was compounded annually over four years, 1992 - 1996, to yield an 8% adjustment factor.

(v) 1996 updated standardized operating payment amounts were reduced by 8% to account for expected DRG coding improvements that are projected to occur during the 1992 through 1996 rate years.

(vi) The 1996 updated standardized payment amounts were further reduced by 4% to finance the expected additional payments to hospitals for high cost outlier cases.

6. **Standardized Operating Payment Amounts for Rate Year 1996:** The Bureau has established two standardized operating payment amounts: one standardized amount for large urban hospitals and another standardized amount for all other hospitals. Hospitals located in the following three counties receive the higher large urban standardized amount: Kanawha, Cabell and Putnam counties.

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(a) For rate year 1996, the updated 1992 standardized amount for hospitals in large urban areas is $2,213.00.

(b) For rate year 1996, the updated 1992 standardized amount for hospitals not in large urban areas is $2,095.52.

(c) For rate year 1996, the updated 1992 statewide standardized amount is $2,135.

(d) The Bureau will phase out the two separate standardized operating amounts, moving to one statewide standardized amount in rate year 2000, using the schedule in Attachment A.

7. **Payments for Sole Community Hospitals:** The Bureau gives special payment consideration to small rural or "isolated" hospitals through it's sole community provider program.

(a) Medicare-determined Sole Community Hospital (SCH) will be paid on a DRG per case basis using the same rules as other acute care hospitals.

(b) SCH's own costs were standardized for case mix, wage differences and indirect medical education costs.

(c) For rate years 1996 through 1999, a SCH's standardized payment amount is based on a 50-50% blend of the non-large urban peer group amount and its own 1992 average allowable costs per discharge updated through the rate year using the DRI/McGraw Hill PPS Hospital Index.

(d) For rate years beginning 2000, a SCH's standardized payment amount is a 50-50% blend of the statewide standardized amount and its own 1992 average allowable cost per discharge updated through the rate year using the HCFA Hospital market basket as reported in the Federal Register. The Bureau will offset the payment amount for 2000 by national productivity improvements percentage as estimated by the Medicare Payment Advisory Commission. More specifically, the 3.6% increase in the HCFA market basket for the 18 months, January 1998 - June 1999, that was used for RY2000 was reduced by 2.025% based on MedPAC's estimate of national hospital productivity gains.

(e) For rate years beginning 2001, the Bureau will use both national productivity improvements and West Virginia hospital productivity improvement and site of service change in determining the update. The productivity gain estimate will be based on an analysis of trends in (a) patient lengths of stay, site of care, and casemix-adjusted operating costs per case, (b) casemix-adjusted discharges per employee and hourly wages, and (c) hospital operating and total margins. The percent growth in the DRI Hospital Index will be reduced by the estimated percent increase in overall hospital industry productivity. In addition, the Bureau will adjust the labor portion of the national market basket to reflect the West Virginia labor market as measured using ES 202 data. In past years, national trends in hospital-related wages have been used in DRI's Hospital Index of input costs, i.e., the market basket. Beginning in 2001, West Virginia-specific trends in ES 202 wage data will be substituted in constructing the DRI market basket. West Virginia trends in wages have been systematically lower than trends nationally. For example, assume that wages and salaries are 70% of market basket costs. Further assume that the forecasted wage index based on national data was 104 (on a base of 100) while the West Virginia wage index was 103. Then, assuming non-salary costs rose 2% (to 102), the nationally-based market basket inflation factor would grow 3.4% (= .7*104 + .3*102) versus only 2.7% (= .7*103 + .3*102) using West Virginia wage trends. In calculating the allowed market basket update component, the DRI labor-nonlabor weights will be used.